[7590-01-P]

### **NUCLEAR REGULATORY COMMISSION**

[Docket Nos.: 50-354, 50-272 and 50-311; NRC-2012-0264]

#### **PSEG Nuclear LLC**

Hope Creek Generating Station and Salem Generating Station, Units 1 and 2

Exemption

## 1.0 BACKGROUND

PSEG Nuclear LLC (PSEG or the licensee) is the holder of Facility Operating License Nos. NPF-57, DPR-70, and DPR-75, which authorize operation of the Hope Creek Generating Station (HCGS), and Salem Nuclear Generating Station, Units 1 and 2 (Salem), respectively. The licenses provide, among other things, that the facility is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (NRC or the Commission) now or hereafter in effect.

The facilities consist of one boiling-water reactor, HCGS, and two pressurized-water reactors, Salem Units 1 and 2, all located in Salem County, New Jersey.

### 2.0 REQUEST/ACTION

Part 26 of Title 10 of the *Code of Federal Regulations* (10 CFR), Subpart I requires licensees to establish a policy for the management of fatigue for all individuals who are subject to the licensee's Fitness-for-Duty program. Regulatory Guide 5.73, "Fatigue Management for Nuclear Power Plant Personnel," endorses the Nuclear Energy Institute (NEI) report, NEI 06-11, Revision 1, "Managing Personnel Fatigue at Nuclear Power Plants," with clarifications, additions and exceptions. The NRC staff has endorsed this guidance for use during a plant emergency.

After exiting the emergency, the licensee is immediately subject to the scheduling requirements of 10 CFR 26.205(c) and the work hour/rest break/minimum day off requirements of 10 CFR 26.205(d). All time worked during the emergency must be tracked to help ensure that individuals are not fatigued on the first day of reinstated work hour controls, per 10 CFR 26.205(b)(3). On June 2, 2010, during a public meeting that was held to discuss lessons-learned from Part 26, Subpart I exemption request submissions and work hour controls during periods of severe winds such as a tropical storm or hurricane, the NRC staff indicated that it found NEI report 06-11, Section 7.5, "Reset from Deviations," to be an acceptable method for resuming work hour controls after the recovery period.

Section 26.205(b) contains the requirement to count work hours and days worked; and (b)(2) was reviewed to understand if the licensee had provided a reasonable opportunity and accommodations for restorative sleep.

Salem and HCGS are located along the eastern shore of the Delaware River and can be impacted by tropical storms and hurricanes during the hurricane season and severe winter precipitation conditions during the months of January and February. By letter dated November 30, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML113350245), as supplemented by letters dated June 4, 2012, and August 30, 2012 (ADAMS Accession Nos. ML12157A061 and ML12244A055, respectively), the licensee requested an exemption from the requirements of 10 CFR 26.205(c) and (d) for meeting work hour rule controls during declarations of severe weather conditions involving tropical storm or hurricane force winds or severe winter precipitation. According to the application, adherence to work hour control requirements could impede the ability to respond to an emergency condition at the site when travel to and from the site may be impeded. Specifically, the exemption would

allow Salem and HCGS to sequester sufficient individuals to establish a 12-hour duty schedule comprised of 2 shifts to maintain safe and secure operation during severe weather conditions.

# 3.0 <u>DISCUSSION</u>

Pursuant to 10 CFR 26.9, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 26, when the exemptions are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

### 3.1 Exemption from Sections 26.205(c) and (d)

Pursuant to 10 CFR 26.207(d), licensees need not meet the requirements of Section 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan. The hurricane-related entry condition for the Salem and HCGS declaration of an Unusual Event is a sustained wind speed greater than 75 miles per hour (mph). The criteria for sequestering essential personnel include travel conditions forecasted to be hazardous for employee commutes to and from the site, such as sustained wind speeds greater than 40 mph, as determined by the National Weather Service. Therefore, the exemption request covers a period which precedes the declared emergency, as individuals need to be sequestered before the severe weather conditions. Similarly, the severe winter weather-related entry conditions are based on forecasts issued by the National Weather Service. The entry conditions include the issuance of a winter storm watch, a blizzard warning or an ice storm warning by the National Weather Service. A winter storm watch is issued by the National Weather Service when there is a potential for heavy snow or significant ice accumulations, usually 24 to 36 hours in advance. A winter storm warning is issued by the National Weather Service when a winter storm is producing or is forecasted to produce heavy snow or significant ice accumulations. Blizzard warnings are issued for winter storms with sustained or frequent winds of 35 mph or higher with

considerable falling and/or blowing snow that frequently reduces visibility to 1/4 mile or less. An example of the severity of a winter storm that would likely rise to the level of a winter storm warning or watch for the area surrounding Salem and HCGS is one that is expected to produce an accumulation of 12 inches or more of snow.

# 3.2 Recovery Exemption Immediately Following a Severe Weather Exemption

The period immediately following the severe weather conditions may require a recovery period. Also, high winds and inadequate road conditions that make travel unsafe, but fall below the threshold of an emergency, could be present for several days. After the severe weather condition has passed, sufficient numbers of personnel may not be able to access the site to relieve the sequestered individuals. An exemption during these conditions is consistent with the intent of the 10 CFR 26.207(d).

# 3.3 <u>Fatigue Management</u>

Salem and HCGS plan to establish a 12-hour duty schedule comprised of 2 shifts.

When personnel are to be sequestered on site, Salem and HCGS will provide arrangements for onsite reliefs and bunking, in order to allow for a sufficient period of restorative sleep for personnel. The relief and bunking areas will be developed prior to sequestering personnel.

The NRC staff finds the actions presented to be consistent with the practice of fatigue management.

### 3.4 Maintenance

The exemption request stated that it would only apply to individuals involved in severe weather response activities that perform duties identified in 10 CFR 26.4(a)(1) through (5). The exemption does not apply to discretionary maintenance activities. The exemption allows the licensee to provide for the use of whatever plant staff and resources are necessary to respond to a plant emergency and ensure that Salem and HCGS achieve and maintain a safe and

secure status and can be safely restarted. Suspension of work hour controls is for site preparation activities and those deemed critical for plant and public safety only. This does not include activities required to restart the units following any severe weather condition.

#### 3.5 Returning to Work Hour Controls

Salem and HCGS must return to work hour controls when the plant management determines that adequate personnel are available, and both onsite and relief crews have had sufficient time off before resuming their normal work duties. Upon exiting the exemption, the work hour controls in Section 26.205(c) and (d) apply, and the requirements in Section 26.205(3)(b) must be met.

# 3.6 Authorized by Law

This exemption would allow Salem and HCGS to sequester sufficient individuals to establish a 12-hour duty schedule comprised of 2 shifts to maintain safe and secure operation during severe weather conditions. As stated above, 10 CFR 26.9 allows the NRC to grant exemptions from the requirements of 10 CFR Part 26. The NRC staff has determined that granting of the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

### 3.7 Will Not Endanger Life or Property

Section 26.207 provides an exception to the requirements of 10 CFR 26.205(c) and (d) during declared emergencies, as defined in the licensee's Emergency Response Plan. The proposed exemption expands that allowance for severe weather conditions involving tropical storm or hurricane force winds or severe winter precipitation that may or may not result in the declaration of an emergency. Such an allowance supports sequestering enough required

personnel to provide for shift relief, which is necessary to provide a safe and secure status of the units and ensure adequate protection of the health and safety of plant personnel and the public. Therefore, granting this exemption will not endanger life or property.

## 3.8 Will Not Endanger the Common Defense and Security

The proposed exemption would allow Salem and HCGS to sequester sufficient individuals to establish a 12-hour duty schedule comprised of 2 shifts to maintain safe and secure operation during severe weather conditions. This change to the operation of the plant has no relation to security issues. Therefore, the common defense and security is not impacted by this exemption.

### 3.9 <u>In the Public Interest</u>

The proposed exemption is already an exception provided in 10 CFR 26.207, which allows the requirements of 10 CFR 26.205(c) and (d) to not be met during declared emergencies, as defined in the licensee's Emergency Response Plan. The exemption is needed for a unique set of circumstances to (1) ensure that the control of work hours and management of worker fatigue does not impede the ability to use available staff resources to respond to a severe weather threat, and (2) ensure that the plant maintains a safe and secure status. Therefore, the public interest is served by this focus on nuclear safety and security.

### 4.0 ENVIRONMENTAL CONSIDERATION

The exemption would authorize exemption from the requirements of 10 CFR 26.205(c) and (d) to allow Salem and HCGS to sequester sufficient individuals to establish a 12-hour duty schedule comprised of 2 shifts to maintain safe and secure operation during severe weather conditions. Using the standard set forth in 10 CFR 50.92 for amendments to operating licenses, the NRC staff has determined that the subject exemption sought involves employment suitability

requirements. The NRC has determined that this exemption involves no significant hazards considerations, as discussed below:

- (1) The proposed exemption is administrative in nature and is limited to allowing a temporary exception from meeting the requirements of 10 CFR 26.205(c) and (d) during severe weather to ensure that work hour controls do not impede the ability to use available staff resources to respond to a severe weather event. The proposed exemption does not make any physical changes to the facility and does not alter the design, function or operation of any plant equipment. Therefore, issuance of this exemption does not significantly increase the probability or consequences of an accident previously evaluated.
- (2) The proposed exemption does not make any changes to the facility and would not create any new accident initiators. Therefore, this exemption does not create the possibility of a new or different kind of accident from any accident previously evaluated.
- (3) The proposed exemption does not alter the design, function or operation of any plant equipment. Therefore, this exemption does not involve a significant reduction in the margin of safety.

Based on the above, the NRC has concluded that the proposed exemption does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92, and accordingly, a finding of "no significant hazards consideration" is justified.

The NRC staff has also determined that the exemption involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite; that there is no significant increase in individual or cumulative occupational radiation exposure; that there is no significant construction impact; and there is no significant increase in the potential for or consequences from a radiological accident. Furthermore, the requirement from which the licensee will be exempted involves scheduling requirements. Accordingly, the

exemption meets the eligibility criteria for categorical exclusion, set forth in 10 CFR 51.22(c)(25). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required to be prepared in connection with the issuance of the exemption.

# 5.0 CONCLUSION

The Commission has determined that granting these exemptions is consistent with 10 CFR 26.207(d), "Plant Emergencies," which allows the licensee to not meet the requirements of 10 CFR 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan. The 10 CFR Part 26 Statement of Consideration (73 FR 17148; March 31, 2008) states that, "Plant emergencies are extraordinary circumstances that may be most effectively addressed through staff augmentation that can only be practically achieved through the use of work hours in excess of the limits of § 26.205(c) and (d)."

Accordingly, the Commission has determined that, pursuant to 10 CFR 26.9, the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the licensee an exemption from the requirements of 10 CFR 26.205(c) and (d) for Salem and HCGS.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 26<sup>th</sup> day of October 2012.

# FOR THE NUCLEAR REGULATORY COMMISSION

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Michele G. Evans, Director Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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